



DECEMBER 13, 2023

TASK MANAGEMENT SYSTEM

USING C PROGRAMING

submitted to
MOHAMMAD SHAMIM AHSAN



Abstract

This project aims to design and implement a task management system with user authentication functionalities. The system provides users the ability to sign up, log in, add tasks, view tasks for a specific date, delete their account, and exit the system. The user data is stored in "signup.txt," and task details are stored in "tasks.txt." The implementation is in C programming language, providing a console-based interface.

Content Table

Introduction	03
System Design	04
Functionality	05
Implementation	06
Conclusion	07
Acknowledgments	08
References	09
About the Author	10
Project Repository	11

Introduction

Task management systems play a crucial role in organizing and tracking activities. This project addresses the need for a simple yet effective task management system that requires user authentication. The system offers features such as sign up, login, task addition, task viewing, account deletion, and program termination.

System Design

The system consists of two main files for data storage: "**signup.txt**" to store user credentials and "**tasks.txt**" to store task details. The primary functionalities are encapsulated in functions like **signUp**, **login**, **addTask**, **viewTasks**, and **deleteAccount**. The main program orchestrates user interaction through a menu-based approach.

Functionality

- **Sign Up:**
 1. Users can sign up by providing a unique username and a password.
 2. The system checks for existing usernames in "signup.txt" to ensure uniqueness.
- **Login:**
 1. Users must log in with their username and password.
 2. Credentials are verified against data in "signup.txt."
 3. Upon successful login, users access additional functionalities.
- **Add Tasks:**
 1. After login, users can add tasks by specifying the date and task description.
 2. Task details are stored in "tasks.txt" in a predefined format.
- **View Tasks:**
 1. Users can view tasks for a specific date after selecting the corresponding option.
 2. The system searches "tasks.txt" for tasks matching the user and date.
 3. Results are displayed in the console, or a message indicates no tasks found.
- **Delete Account:**
 1. Users can permanently remove their account by providing their username and password.
 2. The system deletes the user's information from "signup.txt" or stores it in a temporary file.
- **Exit:**
 1. Users can exit the program at any point.

Implementation

The implementation is in the C programming language, using file handling to store user credentials and task details. The main program controls the flow of execution, calling functions as needed for different functionalities. The code structure promotes modularity, making it easy to maintain and understand.

Conclusion

This project presents a basic yet functional task management system with user authentication. It fulfills the specified requirements, allowing users to sign up, log in, manage tasks, and delete their accounts. The system provides a foundation that can be extended for more advanced features and user interfaces in future iterations.

Acknowledgments

We appreciate the opportunity to work on this task management system project. Special thanks to the project supervisor and contributors for their valuable input and feedback.

References

- [1] C Standard Library Documentation : <https://en.cppreference.com/w/c/header>
- [2] C Structures : https://www.w3schools.com/c/c_structs.php
- [3] C Pointers : https://www.w3schools.com/c/c_pointers.php
- [4] C Files : https://www.w3schools.com/c/c_files.php

About the Author

This project was created by **Afia Anjum Easha** (ID: 011 232 0050), **Tanisha Binte Habib** (ID: 011 232 0051), **Rafsan Rohan** (ID: 011 232 0060), **Lamia Kamal Nusny** (ID: 011 232 0145), and **Ibdita Ara** (011 232 0151), who are passionate programmers with a focus on developing practical applications in various programming languages.

Project Repository

The source code for this project can be found at <https://github.com/therafsanrohan/TMS-using-C.git>